AMERICAN MEDICAL EDUCATION: The Formative Years, 1765–1910, by Martin Kaufman. Greenwood Press, 208 pp., $12.95.

ORGANIZED MEDICINE IN THE PROGRESSIVE ERA: The Move Toward Monopoly, by James G. Burrow. Johns Hopkins University Press, 218 pp., $12.95.

Monopolizing medicine

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IF YOU HAPPEN TO LIKE gadgets and enjoy browsing through catalogs, you will find in Hewlett-Packard's latest list of offerings a whole series of booklets containing programming solutions newly available to the owner of that wonder of modern technology, the programmable, hand-held calculator. You might also note that of the many booklets offered, one is aimed specifically at the medical practitioner, allowing him quick solutions to calculating problems in, among other areas, "bedside blood-gas interpretation" and "anesthesiology parameters." But in addition, the medical practitioner's kit contains a library of problem-solving programs at first blush unrelated to the field of medicine and yet included in booklets aimed at no other profession: "Income-tax planning I and II."

An interest in maximizing one's income (and minimizing one's taxes) is, of course, not limited to medical doctors. But American physicians as a group have been unusually successful in securing their share of the national wealth, indeed, in almost all cases successful out of all proportion to their skill, training, and contributions to the welfare of their fellow men. In 1970, the median net earnings of nonsalaried physicians in the United States, of whom there were approximately 200,000, was more than $41,500 a year. This was substantially higher than the incomes of other professions. For example, the comparable figures for self-employed dentists was $28,100; for engineers, $17,700; and for college teachers at the rank of full professor, $16,800.

The differential has continued to broaden over time, and by 1974 the median net income of physicians who had seen fit to incorporate themselves—over a third of all office-based medical doctors—had reached the enviable figure of $72,500. Thus, despite the image of Schweitzer-like devotion to the poor and ailing, which the American Medical Association has so assiduously tried to promote over the years, the medical profession has done startlingly well financially. Milton Friedman and Simon Kuznets pointed out more than 30 years ago that the discrepancy between the incomes of physicians and members of other professions could not be explained by the higher costs involved in the training of doctors nor by other factors associated with the free interplay of supply and demand. Rather, the discrepancy is indicative of the medical profession's ability to determine the number of new physicians that will be created each year and hence to control the current stock of doctors. The structure and methods of organized medicine and the development of medical education, all of which have permitted this state of affairs to come about, are treated in both Kaufman's and Burrow's books.

Kaufman attempts a survey of the history of medical education in the United States from its rudimentary beginnings in colonial America to the release of the Flexner report in 1910. After discussing the system of apprenticeship that prevailed in pre-Revolutionary America, he traces the development of more formalized education in the nineteenth century, as medical schools, the great bulk of which were proprietary, were organized throughout the country in larger and larger numbers. Between 1810 and 1840, Kaufman notes, 26 new schools were established, and the succeeding 37 years witnessed the addition of 47 more. These schools were neither licensed nor controlled by the government, a circumstance which allowed for their proliferation and thus provided increasing numbers of physicians to a growing country. In fact—although Kaufman neglects to point this out—there were more medical doctors per 100,000 people in the United States in 1850 than there were in 1970. Nor, after 1830, were medical licensing laws a serious obstacle to the practice of medicine. Under severe attack from Jacksonian democrats and heterodox physicians, those laws which did exist were repealed between 1830 and 1850. By the middle of the century, the trade of doctoring was no more controlled than that of horseshoeing.

HETERODOX MEDICINE particularly its two major sects, homeopathy and eclecticism, were instrumental in awakening the public to the barbaric state of orthodox medicine prior to 1850. Even Kaufman, whose sympathies lie with the orthodox physicians and their eventual victory in driving the irregular practitioners out of the profession, is appalled by the level of medical practice throughout the first half of the century. "The period from the 1790s to about 1850," he writes, "has been designated by historians as the 'age of heroic medicine.' During these years summoning a physician almost certainly meant undergoing treatment that in an earlier or later time might be characterized as torture."

It was in reaction to the state of clinical medicine, which killed far more often than it cured, that homeopathy and eclecticism developed. Homeopathy, with its stress on minute doses of medication, and eclecticism, emphasizing botanical and herbal remedies, did much to improve the general level of medical therapy by weakening the previously unassailable position which "heroic" treatment had among medical practitioners. That these sects were eventually able to flourish in America is due in large measure to the removal of licensing laws, which, had they been strictly enforced, would have barred their members from practicing medicine. Indeed, one of the central weaknesses of Kaufman's study is his bias in favor of "reform" elements in the medical profession which supported the introduction of stiff licensing laws and obligatory standards of education; in the end these laws and legally enforced standards resulted in the elimination of heterodox practitioners and assured orthodox medicine no further competition.

It is true, as Kaufman maintains, that by modern standards the level of medical training throughout the nineteenth century was fairly low and the average level of education became lower with the proliferation of medical schools. But there is no data to support his thesis that the general level of med

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cal care plummeted as the number of schools multiplied, a thesis especially unwarranted if one includes self-medication. Nor is there any reason to conclude that the absolute number of what Kaufman would regard as competently trained doctors declined over the course of the century, as he clearly implies. Despite the massive increase in population that the United States witnessed between 1850 and 1910—an increase of almost 400 percent—the number of physicians kept pace, from 40,000 in 1850 to more than 150,000 in 1910. These new doctors, created in large numbers by new educational facilities scattered across the country, were not as well trained perhaps as physicians graduated from the more prestigious eastern schools. Considering, however, the awesomely primitive level of treatment administered by even the most highly respected clinicians throughout most of the century, the difference between the best- and worst-trained physicians cannot have been substantial.

THE MEDICAL REFORMERS, with whom Kaufman identifies, were intent on "upgrading" education out of a desire not so much to raise the level of medical care as to restrict competitive forces at work in their profession and thus ensure a more "stable" economic climate in which to practice their trade. Kaufman points to a number of attempts, beginning as early as 1827, to raise the standards of admission to medical schools and to lengthen the required period of study for a diploma—attempts which, for the most part, proved unsuccessful. However, with the reintroduction of state licensing laws after 1880, it became possible to institute the reforms so zealously sought by the American Medical Association and the Association of American Medical Colleges, an organization founded in 1891 by the "better" orthodox schools. Medical licensing laws, as originally drafted, provided that all holders of medical diplomas were automatically licensed to practice in the state. Under intense pressure from the profession, however, these laws were revised to provide for compulsory examination of all prospective licensees. But the final step had still to be taken, amending the laws still further to require that only holders of diplomas from "qualified" medical schools be recognized by state licensing boards. Although the campaign to effectuate this reform is covered in the final chapter of Kaufman's book, the topic, together with its implications, receives more substantial attention in Burrow's work.

Burrow's study of organized medicine from 1900 to America's entry into World War I treats extensively the American Medical Association's activities in encouraging the various state legislatures to enact legislation benefiting physicians—invariably, it appears, at the expense of consumers of medical services. As Burrow notes in his preface, "Patterns of control that the profession secured over the supply of physicians in the Progressive Era account in large measure for the physician-shortage crisis that the nation has faced for about three decades."

In 1900 the AMA inaugurated its highly successful program of expansion by fixing as its principal objective the achievement of its economic ends through political means; the most important of the means employed was legally enforced professional control over the output of physicians. Toward this end, in 1904 it established its Council on Medical Education, which two years later proceeded to rate all the nation's medical schools. With unblushing hypocrisy the council established as one of its criteria that a school should exist for the advancement of medical education, rather than the financial gain of its faculty. Of the 160 schools rated, 79 received a rating of "unacceptable" or lower. Burrow points out that the survey had the active support of state medical societies and, more important, many state boards of health and medical licensing boards—themselves, one need hardly add, composed of physicians. With the backing of such powerful allies, 29 states revised their medical practice laws to empower their examining boards to deny recognition to "substandard" colleges by 1908; as a result, by 1910, 27 schools, or 14 percent of the total, had collapsed.

THE COUNCIL'S SUCCESS IN reducing the number of schools was appreciably aided by the work of Abraham Flexner. The publication of his report on medical education did more to limit the output of physicians than any other single event in the history of American medicine. At the urging of the AMA, the Carnegie Foundation commissioned Flexner to undertake an extensive and ostensibly independent study of American medical schools. Since he was not a physician, scientist, or medical educator, however, Flexner relied heavily on the work previously done by the AMA's Council on Medical Education and particularly on the help of the council's secretary, Dr. N. P. Colwell. The conclusions Flexner reached were published under the auspices of a seemingly disinterested and detached foundation, thus protecting his report against charges of special pleading. Not surprisingly, Flexner's conclusions were almost identical to those made in 1904 and to those contained in the council's second survey in 1910; to the extent that they differed, it was Flexner's that were more critical of the existing situation.

"Flexner's *Report,*" notes Burrow, "struck citadels of medical instruction with the force of a tornado and left many medical educators stunned and shocked. Many old and venerable institutions swayed before his attack, while scores of weaker schools were all but uprooted." The report was, naturally enough, extolled by the *Journal* of the AMA and was widely publicized by state medical societies. Most important, it sealed the fate of a large number of schools. Most medical examining boards made it a prerequisite for licensure that the candidate be graduated from a Class A medical school, as determined by the Association of American Medical Colleges, some local or regional group, or, most commonly, the AMA's Council on Medical Education. The effects on medical education were immediate; Burrow points out that by 1915, only 95 schools remained, a 22 percent decrease in three years. Enrollments, which had stood at more than 28,000 in 1904, were down to half that number 11 years later. They were not to return to the 1904 level until 50 years later.

An important defect of Burrow's analysis is that he fails to detail the consequences on minority enrollments of the AMA's ratings and the Flexner report. By 1929, all medical schools not graded as Class A had closed their doors, leaving only 76 schools in the country, a decline from 160 in 1904. As Reuben Kessel noted, the effect on black schools, however, was even more precipitous; their number dropped from 7 to 2. Enrollments of black students were further reduced by the additional requirements of internship and residency demanded of Class A schools, since most hospitals would not permit blacks on their staffs. With the reduction in the number of medical schools and the increasingly high rates of rejec-

tion of applicants to those schools which survived, a similar decrease in places for Jews and women occurred.

BURROW'S STORY DOES NOT stop with a review of reforms in medical education. Physicians also sought seriously to limit, if not eradicate, the newer medical sects that had sprung up at the end of the nineteenth century. By 1920, the AMA had effectively eliminated homeopathy and eclecticism, by both classifying their schools as below acceptable levels and absorbing their less zealous practitioners into orthodox medicine. However, osteopathy and chiropractic now emerged as threats to the monopoly control over medical practice that the AMA was bent on achieving. Toward this end, organized medicine sought laws preventing the licensing of these groups. Where this was impossible, they lobbied for strict licensing laws and extremely rigid licensing examinations in all aspects of medicine and biology for prospective osteopaths and chiropractors. At the same time they secured legislation limiting the boundaries of heterodox practitioners.

In most states, osteopaths and chiropractors, when permitted to practice at all, were not allowed the title of physician, could not prescribe or administer drugs, could not perform surgery, and were prevented from aiding in childbirth. At the same time, the AMA launched a nationwide campaign against these sectarian groups, pointing them up as quacks and incompetents. All in all, organized medicine proved fairly successful in its battle against osteopathy and chiropractic. By 1917, the practice of chiropractic was legal in only eight states and only 18 states permitted osteopaths. In all instances, practitioners were subject to the severe restrictions insisted upon by orthodox physicians, despite the fact that their schools were required to maintain standards equal to those of Class A orthodox schools.

The AMA was less effective in its efforts to prevent optometrists from prescribing lenses, a task it claimed properly belonged only to physicians. The circumstance that very few doctors could claim even a minimum competence in refractive procedures did not appear to affect the association's stated position. Indeed, there seem to have been no limits to the sordidness of the AMA in the period covered by Burrow's study: It attempted to bar practitioners of Christian Science on the grounds that they were violating medical practice statutes; it attacked free dispensaries and discount clinics for not being sufficiently select in their determination of who was indigent; it campaigned against university hospitals for price-cutting; and it succeeded in eliminating the occupation of midwifery through the passage of hostile legislation.

Although Burrow's study, like Kaufman's, contains no information not previously published elsewhere, his book serves admirably to underscore the machinations of the medical profession in using political means to limit or destroy all sources of competition, always under the guise of benefiting the public with higher-quality medical care. Burrow, sometimes despite himself, paints a picture of greed, pettiness, and indifference to freedom of contract that is unmatched in any other profession. Organized medicine's high-flown pronouncements concerning its dedication to the goal of ministering to the sick and helpless are, in the light of Burrow's analysis, seen for what they are. The next time you are forced to sit for an hour or two in some physician's waiting room and are looking for something to pass the time, you might consider perusing Burrow's book. If nothing else, it will go a long way toward explaining *why* you are waiting. ❑